

**CLAIMS:**

1. (Currently amended) A method of affecting neurogenesis in a patient comprising the step of:

administering to a patient in need thereof a therapeutic amount of a therapeutic compound selected from the group phosphodiesterase inhibitors, L-arginine, sildenafil, and statins for increasing levels of cGMP to a patient in need of neurogenesis post stroke wherein increased levels of cGMP result in neurogenesis.

Claims 2-5 (Canceled)

6. (Currently amended) A method of augmenting the production of neurons in a patient by administering to a patient in need thereof an effective amount of a therapeutic compound selected from the group of phosphodiesterase inhibitors, L-arginine, sildenafil, and statins that increases levels of cGMP, to a site in need of augmentation, wherein increased levels of cGMP augment the production of neurons.

7. (Currently amended) A method of increasing neurological function in a patient by administering to a patient in need thereof an effective amount of a therapeutic compound selected from the group of phosphodiesterase inhibitors, L-arginine, sildenafil, and statins that increases levels of cGMP to a patient in need of increased neurological function after neurological damage has occurred, whereby the increased levels of cGMP create neurogenesis, thereby increasing neurological function.

8. (Currently amended) A method of increasing cognitive and neurological function in a patient by administering an effective amount of a therapeutic compound selected from the group of phosphodiesterase inhibitors, L-arginine, sildenafil, and statins for increasing levels of cGMP to a patient in need of increased cognitive and neurological function after neurological and cognitive damage has occurred, whereby

the increased levels of cGMP create neurogenesis, thereby increasing neurological function.

9. (Currently amended) A method of affecting neurogenesis in a patient comprising the step of administering to a patient in need thereof an effective amount of a compound selected from the group of phosphodiesterase inhibitors, L-arginine, sildenafil, and statins for increasing levels of cGMP in a patient in need of neurogenesis, wherein increased levels of cGMP result in neurogenesis.

10. (Currently amended) A method of augmenting the production of neurons in a patient by administering to a patient in need thereof an effective amount of a compound selected from the group of phosphodiesterase inhibitors, L-arginine, sildenafil, and statins for increasing cGMP levels at a site in need of augmentation, wherein increased levels of cGMP augment the production of neurons.

11. (Currently amended) A method of increasing neurological function in a patient by administering to a patient in need thereof an effective amount of a compound selected from the group of phosphodiesterase inhibitors, L-arginine, sildenafil, and statins for increasing levels of cGMP in a patient in need of increased neurological function, wherein increased levels of cGMP increase neurological function.

12. (Currently amended) A method of increasing cognitive and neurological function in a patient by administering to a patient in need thereof an effective amount of a compound selected from the group of phosphodiesterase inhibitors, L-arginine, sildenafil, and statins for increasing levels of cGMP in a patient in need of increased cognitive and neurological function, wherein increased levels of cGMP result in neurogenesis, thereby increasing cognitive and neurological function.

Claim 13 (canceled)